

IN THE SPECIFICATION

Before the paragraph beginning on Page 1, Line 6, of the Specification, please insert the following paragraph:

CROSS-REFERENCE TO RELATED APPLICATION

This application is a continuation of U.S. Patent Application Serial No. 07/586,536, filed September 21, 1990, now U.S. Patent No. 6,682,906.

Please replace the paragraph beginning on Page 4, Line 4, and ending on Page 4, Line 5, with the following:

FIGURES 2A-2D ~~FIGURE 2~~ DNA sequence and corresponding amino acid sequence for rat GAD₆₅.

Please replace the paragraph beginning on Page 4, Line 6, and ending on Page 4, Line 7, with the following:

FIGURES 3A-3D ~~FIGURE 3~~ DNA sequence and corresponding amino acid sequence for human GAD₆₅.

Please replace the paragraph beginning on Page 4, Line 8, with the following:

FIGURES 4A-4B ~~FIGURE 4~~ Comparison to rat GAD₆₅ and human GAD₆₅ amino acid sequences.

Please replace the paragraph beginning on Page 9, Line 7 and ending on Page 9, Line 19, with the following:

The novel DNA sequences of the invention include all sequences useful in providing the expression in prokaryotic or eukaryotic host cells of polypeptides which have at least a part of the primary structural conformation for one or more epitopes capable of reacting with autoantibodies to GAD₆₅ which are comprehended by: (a) the DNA sequence as set forth in Figures 2A-2D 2 or 3A-3D 3 or their complementary strands; (b) DNA sequences which hybridize to DNA sequences defined in (a) or fragments thereof; and (c) DNA sequences which, but for the degeneracy of the genetic code, would hybridize to DNA sequences defined in (a) and (b) above. Specifically comprehended in (b) are genomic DNA sequences which encode allelic variant forms of GAD₆₅. Part (c) specifically comprehends the manufacture of DNA sequences which encode GAD₆₅, and GAD₆₅ fragments, and GAD₆₅ analogs wherein the DNA sequences thereof may incorporate codons which facilitate translation of mRNA in non-vertebrate hosts.

Please replace the paragraph beginning on Page 9, Line 20 and ending on Page 9, Line 28, with the following:

Since the cDNA sequence of the invention encodes essentially the entire human or rat GAD₆₅ molecule, it is now a matter of routine to prepare, subclone, and express smaller polypeptide fragments of cDNA from this or a corresponding cDNA sequence which would encode as few as one epitope for autoantibodies to human or rat GAD₆₅. The presence of such an epitope on a cloned polypeptide can then be confirmed using, for example, sera from a patient with autoantibodies to GAD₆₅. An example of such a smaller peptide is the first approximately 100 amino acids from the N-terminus of GAD₆₅ (shown in Figures 3A-3D ~~Figure 3~~). This amino acid sequence is essentially absent from GAD₆₇.

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IN THE DRAWINGS

Please replace Figures 1-7 of the drawings with amended Figures 1-7.